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COLGATE PALMOLIVE CO

19.01.88-US-145427 (23.08.89) C11d-11 C11d-17

Built synthetic organic detergent compans. - comprising high watercontent, rod-shaped extrudates of synthetic detergent, hydratable builder and water

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Built synthetic organic detergent compan. comprises multiple high water content rod-shaped extrudates of synthetic organic detergent (1), hydratuble builder salt(s) (11), water and opt. conventional adjuvants.

The compsns, can be made with relatively inexpensive. ADVANTAGE casy to operate equipment which is not energy intensive. The compans, are not dusty, and can be formed into patties (e.g. single charge detergent prods) which are easily broken up. and which dissolve rapidly in wash water.

PREFERRED COMPOSITIONS

Equiv. dia 0.5-3mm, length 1-10 mm, and ratio length;

Pref. compsns. contain (by wt) 10-30% (I) (esp. 15-25% equiv. dia 1-20:1. Na linear (12-14C) alkylbenzene sulphonate), 30-70% (anhyd.

A(12-W12A, 12-W12B) D(11-A, 11-A1B1, 11-B3, 11-B11, 11-B21, 11-D3}

base) (II) (esp. 25-50% Na tripolyphosphate, 8-20% Na<sub>2</sub>CO<sub>3</sub>, and 0-83 Nn silicate), and 20-35% esp. 20-30% water with wt. ratio (II):(1)=1.5-5:1, and (II):water.

Suitable detergent compsns. comprise patties formed from the adhering rods above, and may also contain 0.2-2% Nu polyacrylate.

Prepn. comprises mixing the components, pref. kneading CLAIMED PREPARATION extruding at low temps, pressures through a worm-in-barrel extruder and a screen, then pref. ageing to allow partial drying and shearing to facilitate breakage into the correct lengths.

A mixt. of (by wt) 20% Na linear tridecylbenzene sulphon-EXAMPLE ate, 34.38 Na tripolyphosphate, 4.38 Na silicate, 14.38 soda ash. 25.8 % (of total wt) water, and minors (qs) was mixed, kneaded, and extruded at 15-25°C/0.3 kg/cm<sup>2</sup> in a screw-inbarrel.(18pp478BKPDwgNo0/4) (E) ISR: FR2138912 US2941948 FR1576756 US3434974 US2875155 FR2372890 GB1191722

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